Earth Circles

The Fruitful Garden

INTRODUCTION

Food!!! Most of us like to eat. All of us have to have food/nutrition in one form or another in order to survive. Our food may be natural, may be processed, or may come to us from distant lands. However it comes to us, it all depends on green plants capturing the sun's energy and storing it in a form that provides nutrition to animal life, including humans.

In our advanced society how aware are we of this vital connection to Earth for our wellbeing? In developed countries it is easy to equate food with the supermarket and not think further. In third world countries people still depend on what they grow for themselves.

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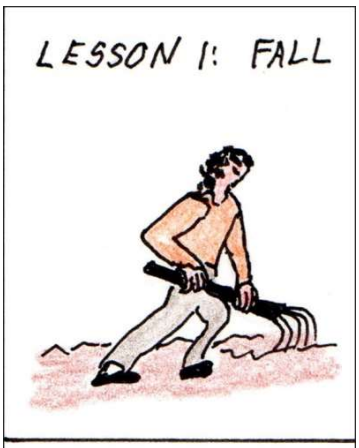
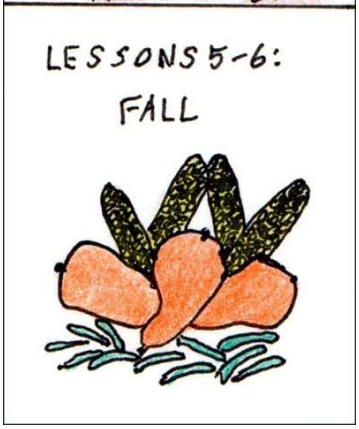


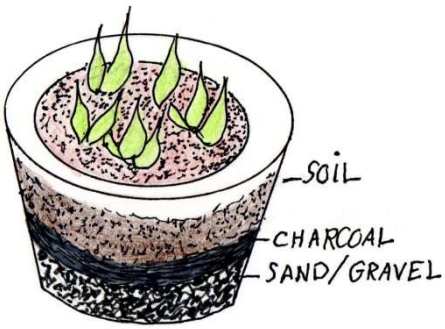


The impact of technology on food supplies is enormous. Modern mass production is possible because of big machines that plow the land, plant the seeds, and harvest the crops. Here in the United States farm land has been taken over by agribusiness. In this system hundreds of acres are used for just one crop such as corn or wheat. Diversity such as trees or hedge rows to provide shade, wind breaks, or shelter for animal life is lacking. Seasonal ground cover plants may not be used to protect the land from soil erosion. There is little concern for native plants and animals. Heavy use of insecticides and chemical fertilizers pollutes the land, air, and water. Untreated wastes are left to rot.

In recent years organic farms are growing in number. In this system the farmer is involved directly with the land and the crops. A variety of crops are grown. Crops may be rotated yearly from field to field around the farm. This practice enriches the soil with multiple diverse nutrients that different plants take from and put into the soil. In addition, wastes are composted and used to enrich the soil, closing the food production circle.

The activities in these lessons give Kids an experience in growing food for themselves. The lessons involve the Kids in the full range of activities basic to growing food wherever people live. The purpose is to develop a level of respect and care for the land where food is grown and to recognize the relative merits and the difficulties of agribusiness and of organic farming. Clearly the lessons need to be scheduled seasonally, one or two at a time. Wherever you are located, timing of the lessons will depend on your local climate. Here in New England we did garden preparation in the Fall, waited for Spring for planting, set up teams to tend the plants over the summer, and harvested our crops the next Fall. We made delicious squash muffins with the fruit of our labors.

Given a lack of a suitable bit of land near some locations, we do suggest options for using raised beds or containers for gardening. The needs of growing plants will be the same: good rich soil with good drainage, a sunny location, and water.



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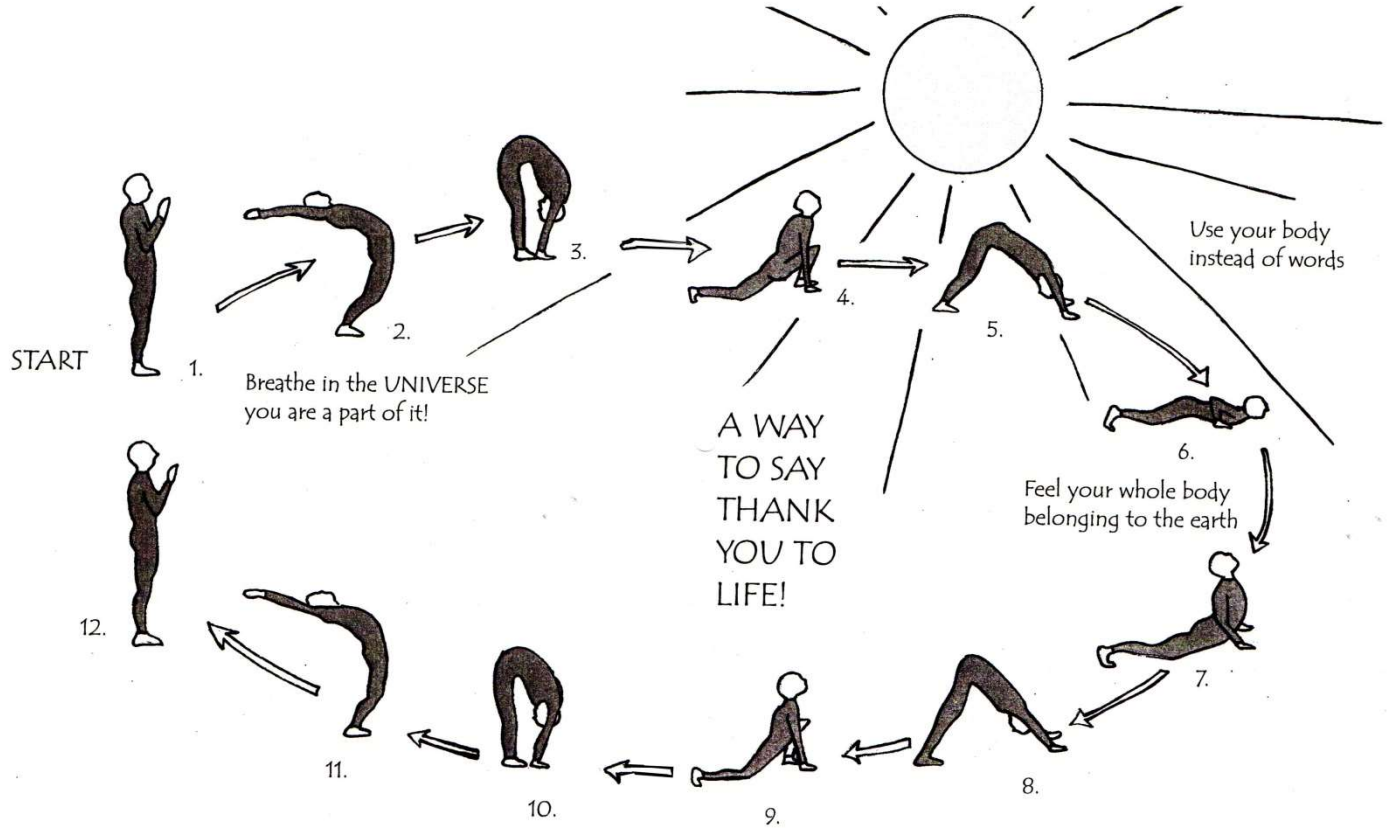
Sunlight is necessary for the success of a vegetable garden. The plants store the sun's energy in carbohydrates (compounds the plants make from carbon dioxide and water and sunlight.) Animal life gets its energy from eating plants. This exercise helps to inspire a sense of reverence for the ultimate source of our energy.



Directions for a Sun Salutation are included here for your use in as many lessons as you would like.

In particular we suggest using the Salutation in lessons one and two.

The Internet has many resources for gardening. Instead of making our own videos that duplicate excellent existing materials, we have evaluated these resources and developed a list to recommend those most relevant for these lessons. Here is a brief listing for your planning. We do include raised bed and container gardening references for teachers who may choose one of these options.

List: *Three Sisters:* https://www.youtube.com/watch?v=hJMnsqVQ3dU

Composting: https://wwwww.youtube.com/watch?v=Njbn34JrKnE

Heifer International: www.heifer.org

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LESSON PLANS:

LESSON 1: HELPING THE EARTH

CONCEPT: When we garden, we care for Earth. We care for the people of Earth.
ACTION: Kids do landscape cleanup and prepare the soil to be ready for Spring planting.

LESSON 2: THE THREE SISTERS

CONCEPT: All individuals are unique, plants as well as people. Working together we can make the world a better place.
ACTION: Kids prepare mounds of dirt and plant seeds, according to Native American tradition.

LESSON 3: OVER THE SUMMER

CONCEPT: Watering and weeding are necessary during the summer months. A successful garden requires commitment.
ACTION: In a brief discussion during lesson 2 Kids talk about plant needs over the summer and commit to a plan for once per week care teams.

LESSON 4: HARVEST TIME

CONCEPT: The plants will give us seeds for next year's crops as well as food for our table.
ACTION: Kids harvest ripe crops and decide how to use the produce.

LESSON 5: THE WINTER GARDEN

CONCEPT: It is necessary to keep giving care and nutrients to the soil over the winter to keep getting food. Plants are dormant or have gone to seed, waiting for Spring.
ACTION: Kids prepare the garden area for winter – pull up and compost plants, fertilize the soil, and sow a winter cover crop.

LESSON 6: FIELD TO FOOD

CONCEPT: We can grow some of our own food ourselves. We can help people who do not have enough food.
ACTION: Kids use squash from the garden to make muffins. They may sell muffins and extra produce at coffee hour and use their earnings to help a local food pantry or similar agency.

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RESOURCES:

Casey, Dawn and Wilson, Anne, *The Barefoot Book of Earth Tales,* Barefoot Books, Cambridge,MA 2009

This beautiful book of folk tales and craft projects portrays how different cultures around the world set out to live in harmony with the patterns of nature.

Cole, Henry, *Jack's Garden,* Greenwillow Books, New York, N.Y., 1995

Text and illustrations depict what happens in Jack's garden after he plants the seeds.

Young Einstein series, *Discovering Nature in the Garden,* Flowerpot Press, Franklin, TN 2012

With this book to guide them, young explorers will gain an understanding of plant and animal life in the garden.

Hoffman, Mary and Jane Ray, *Earth, Fire, Water, Air,* Dutton Children's Books, New York, N.Y., 1995

Colorful illustrations and brief essays introduce children to the ways that different peoples living in different times valued Earth as a mother and as the source of food for the survival of life.

Hannemann, Monika, et al, *Gardening with Children,* Brooklyn Botanic Garden Inc., Brooklyn, N.Y., 2007

This "garden guide for a greener planet" contains a wealth of information about gardening with kids and about caring for planet Earth. Background information and garden related activities are presented in a direct and informative text accompanied by delightful illustrations.

Hoberman, Mary Ann, *Whose Garden Is It?* Harcourt, Boston, Massachusetts, 2004

This delightful children's book makes the case for how food resources are shared among many living things as well as people.

For more information:

Bug Guide - Identification, images, and information: bugguide.net

Kids Discover: The Dirt on Soil: https://www.kidsdiscover.com/teacherresources/dirt-soil/

Worm World – Discovery Kids: yucky.kids.discovery.com

Kids Gardening – http://:www.kidsgardening.com/growing ideas/projects/march02.pl,htm

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